

FERNALD CLEANUP PROGRESS BRIEFING

JUNE 1999

6:30 p.m. Opening Remarks

Gary Stegner

6:35 p.m. Project Updates

Waste Pits Remedial Action Project

John Hall

On-Site Disposal Facility Project

Dennis Carr

Decontamination & Dismantlement

John Trygier

Silos Project

Dave Yockman

Aquifer Restoration/Wastewater Project

John Kappa

Soil Characterization & Excavation Project

Rob Janke

Waste Management

John Sattler

Question and Answer Session

8:30 p.m. Adjourn

PROJECT NEWS

OU1 - WASTE PITS REMEDIAL ACTION PROJECT

- Fernald initiates rail shipments to Envirocare
 - Railcar loading operations continue
- Pit excavation to begin this summer
- Future route for rail shipments

RAIL SHIPMENT TO ENVIROCAR



Photo taken April 1999

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ENVIROCARE OF UTAH

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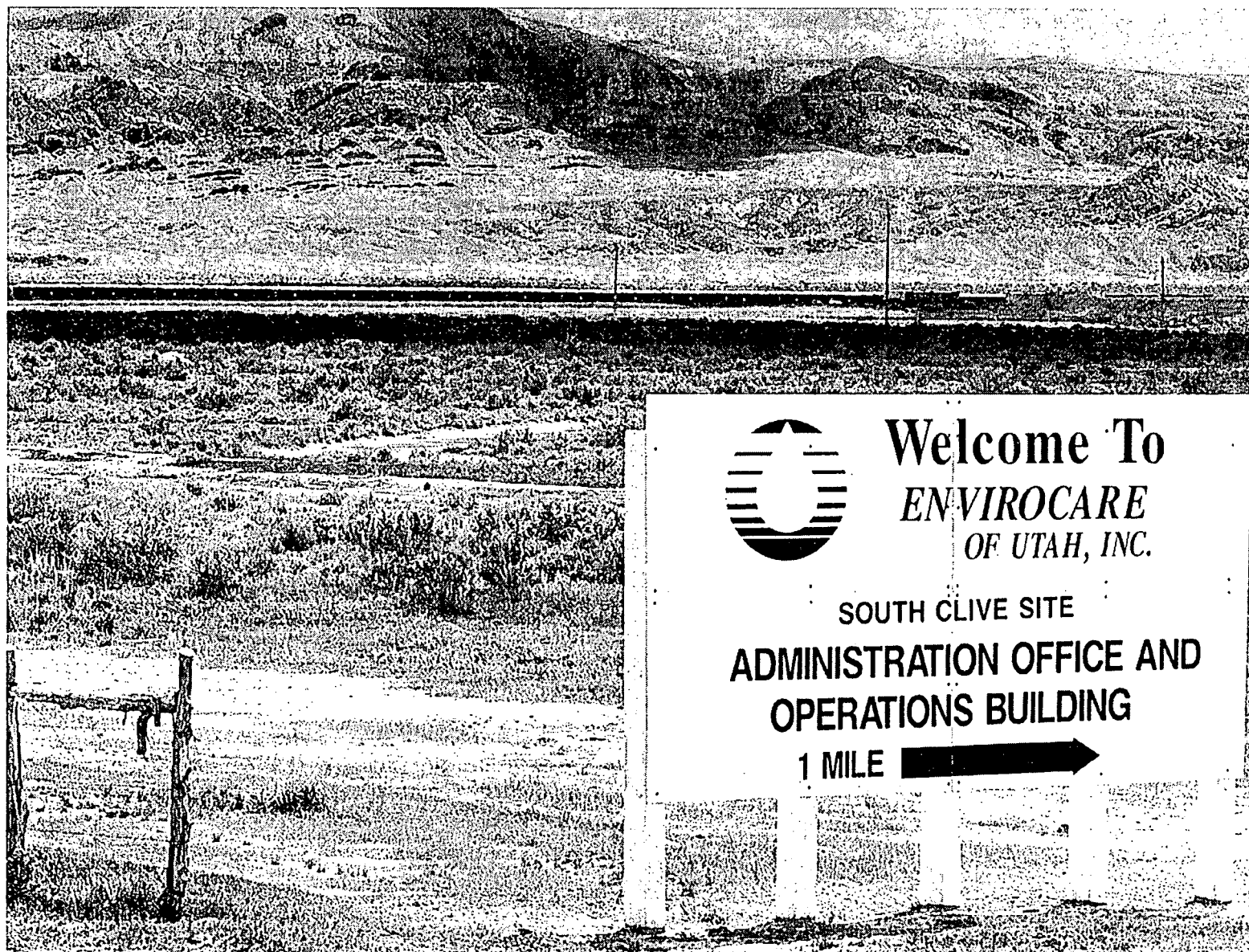


Photo taken May 1999

ENVIROCARE ROLL-OVER FACILITY

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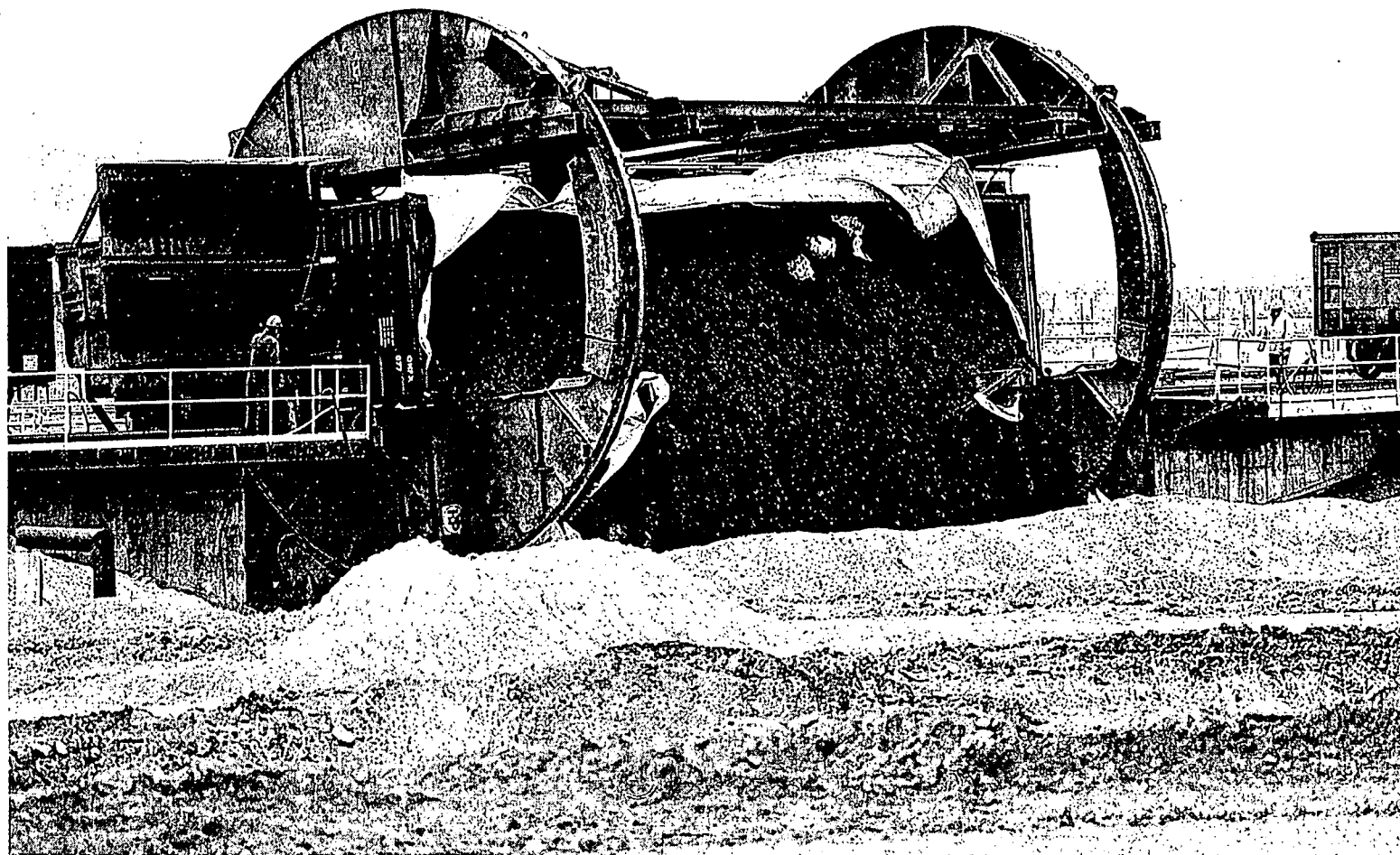


Photo taken May 1999

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ENVIROCAR E ROLL-OVER FACILITY

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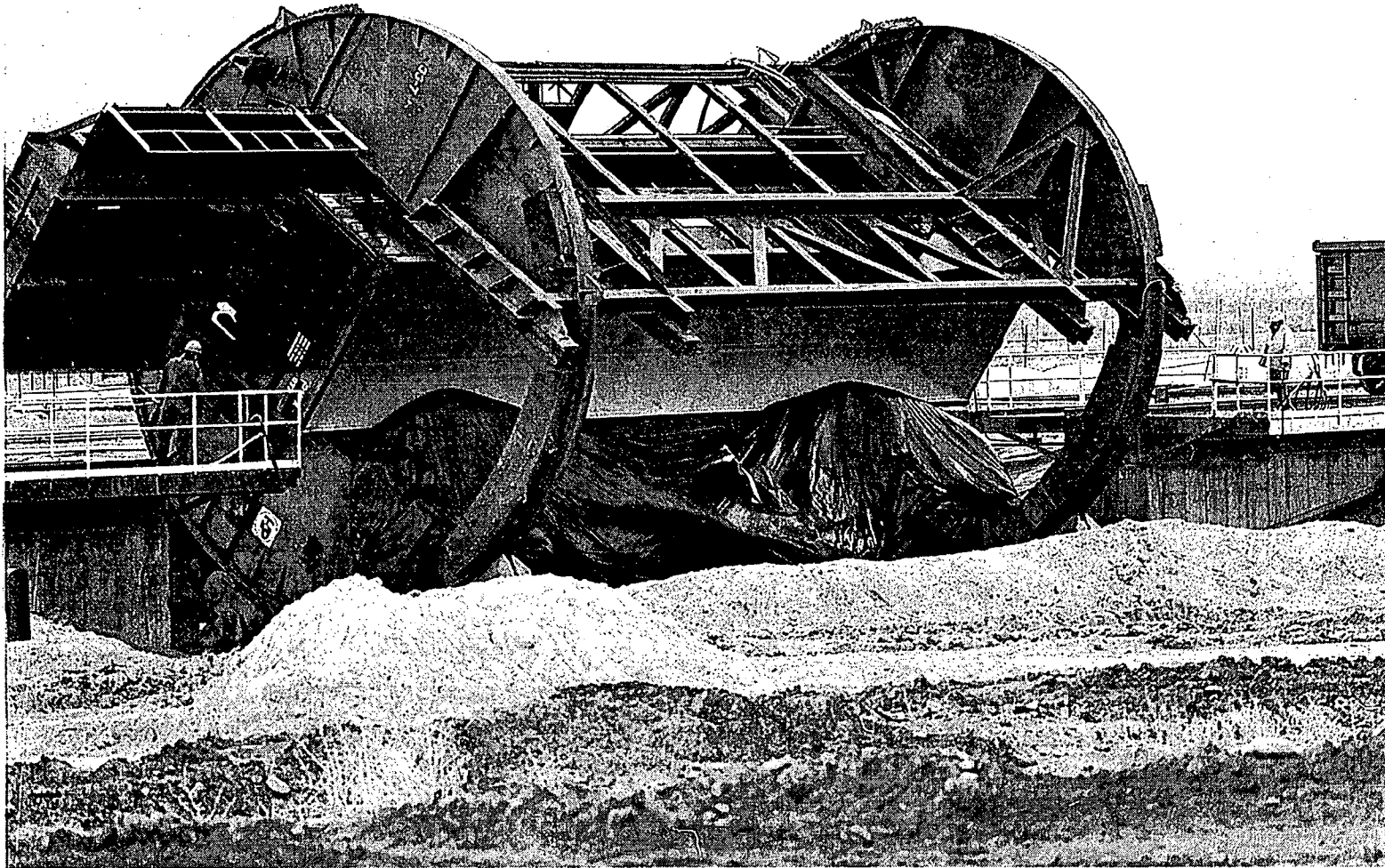


Photo taken May 1999

WASTE PLACEMENT AT ENVIROCAR

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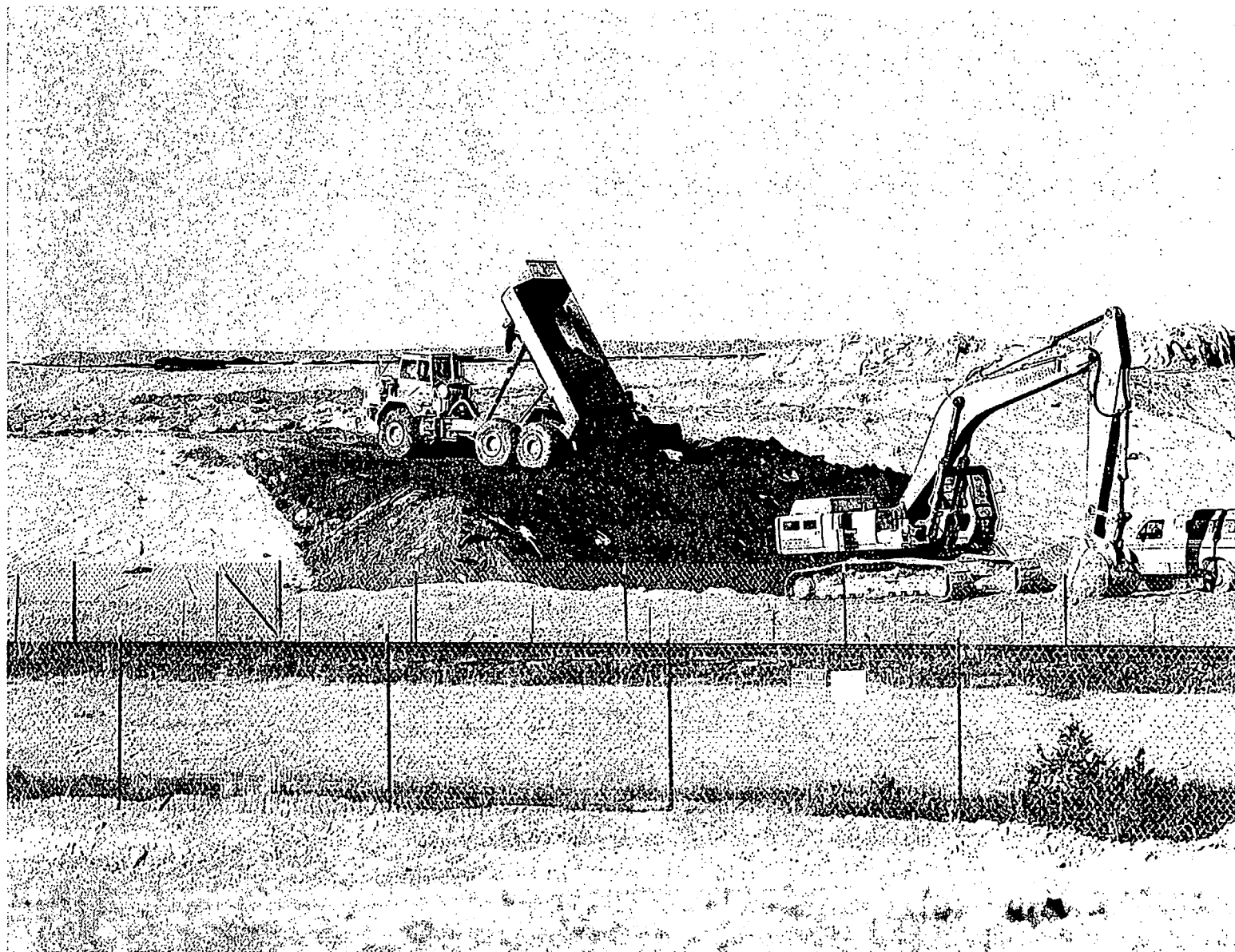
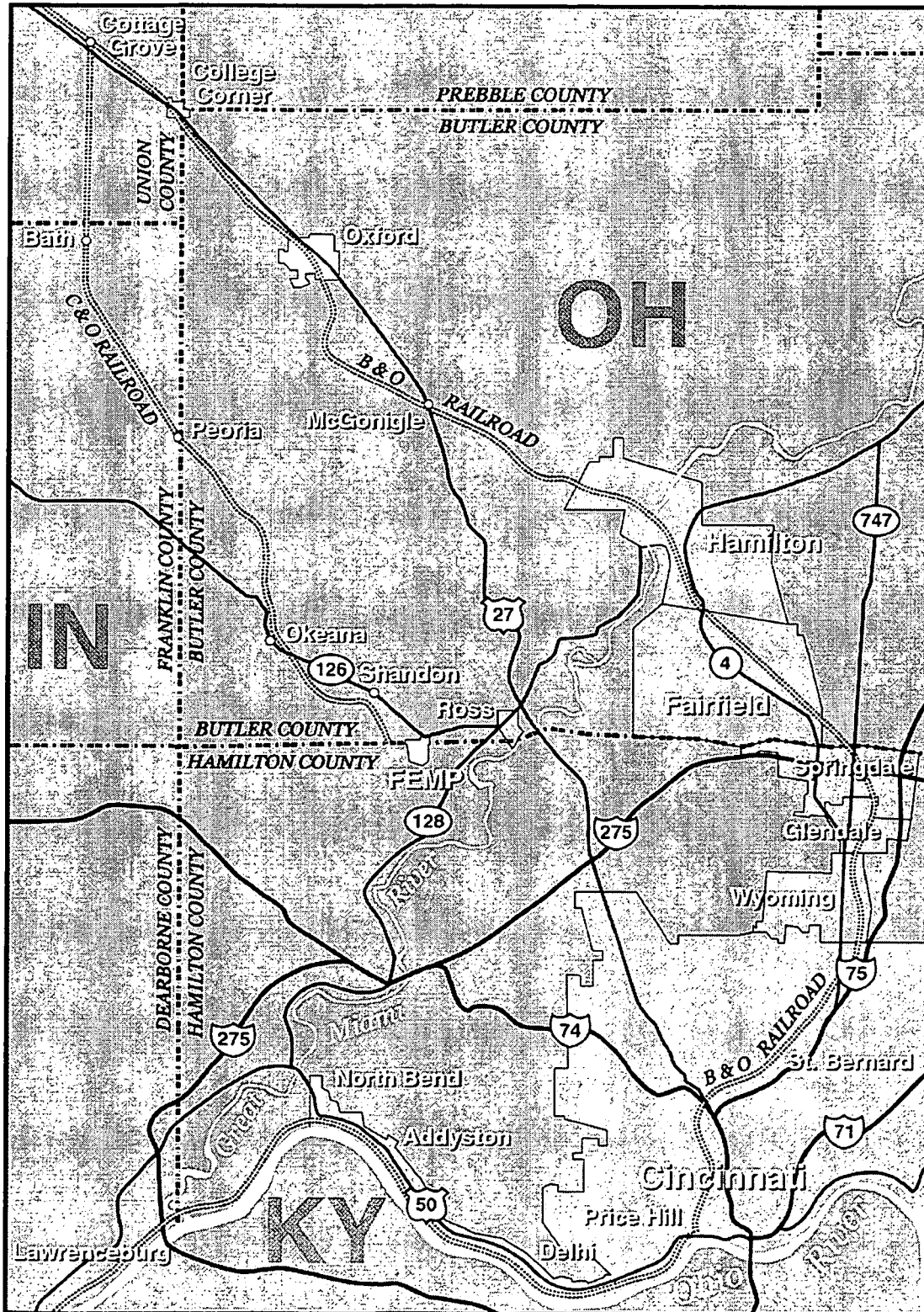


Photo taken May 1999

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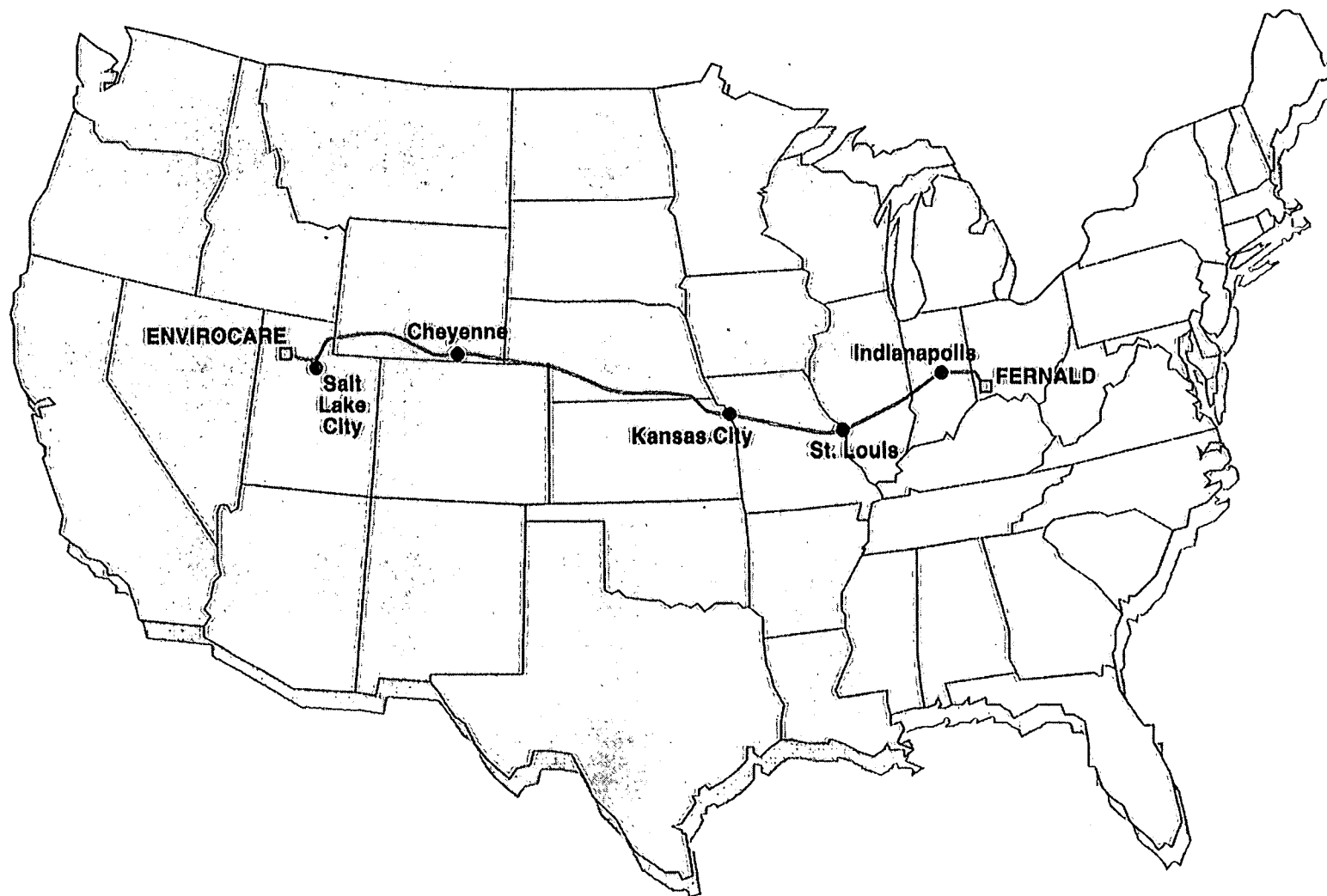
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RAIL ROUTE FOR THE WASTE PITS REMEDIAL ACTION PROJECT



FUTURE RAIL ROUTE TO ENVIROCARE

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PROJECT NEWS

OU2 - ON-SITE DISPOSAL FACILITY

- Leachate Transmission System
 - Leak investigation reports issued
 - Interim restoration of system being completed
 - Design and construction of permanent system accelerated
- OSDF Operations
 - Cell 3 construction initiated in April
 - Cell 3 clay liner construction to begin in July
 - Waste placement activities to resume in June

INTERIM ABOVE-GRADE LINE

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Photo taken May 1999

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OSDF CONSTRUCTION

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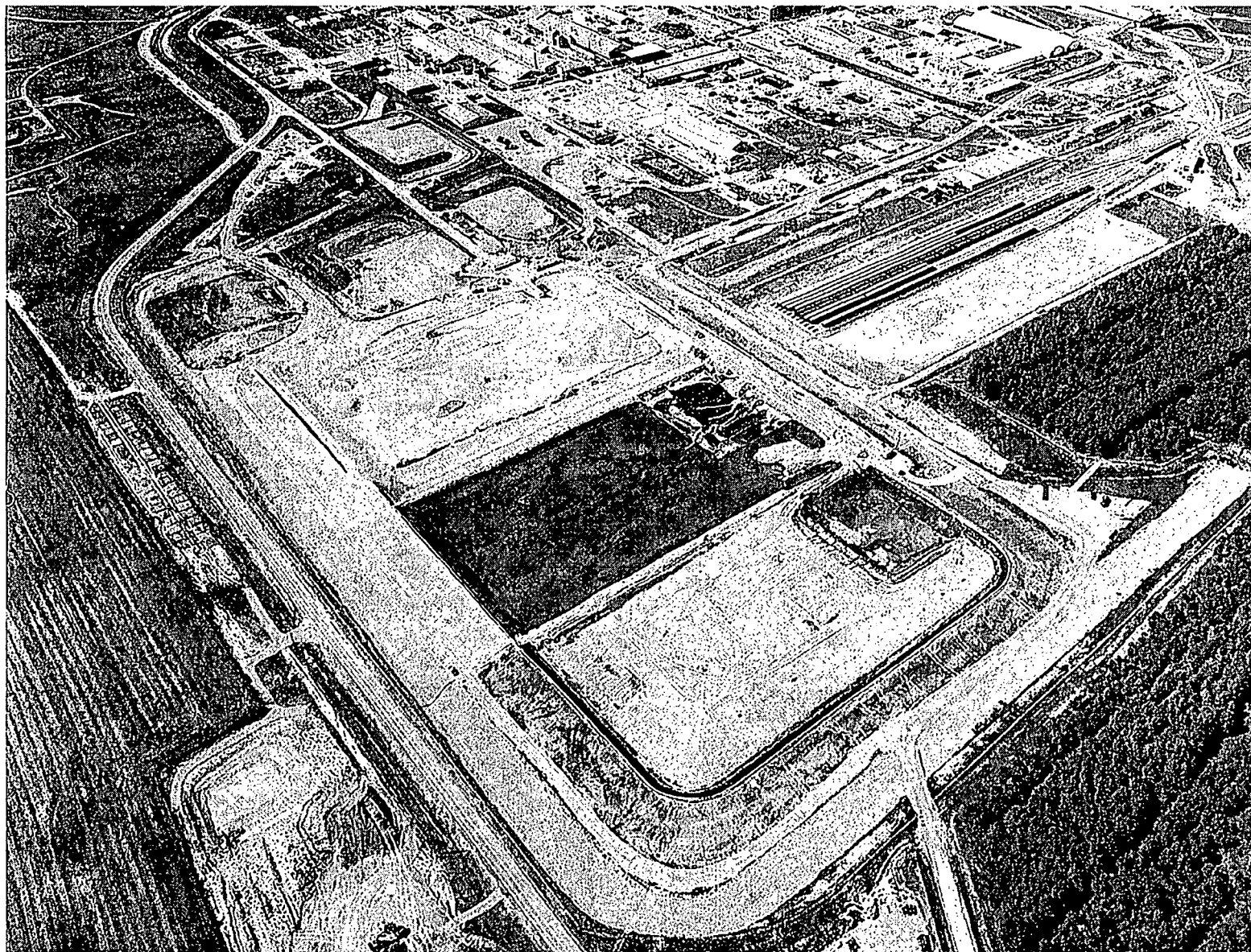


Photo taken April 1999

CELL 3 SUB-GRADE PREPARATION



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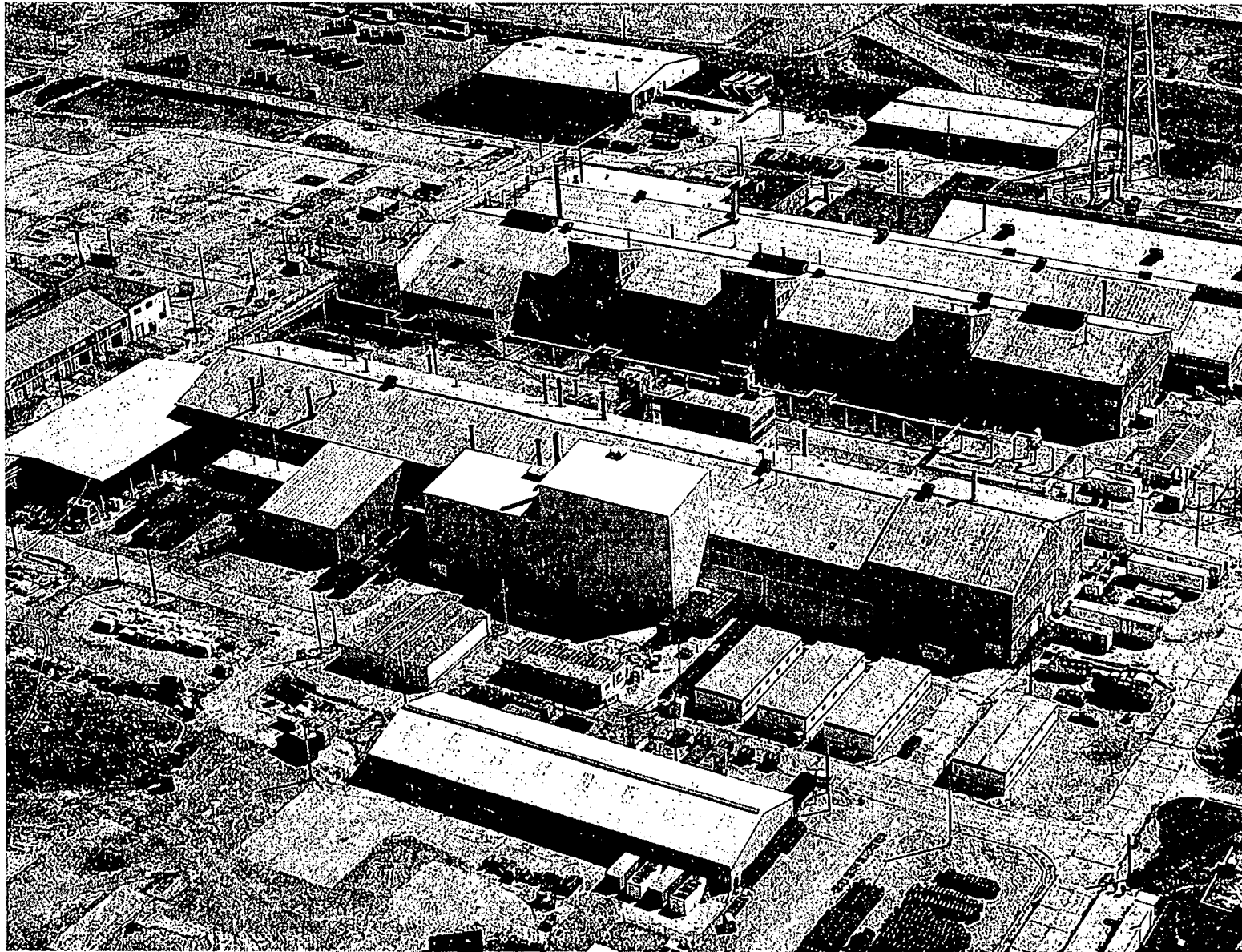
Photo taken May 1999

PROJECT NEWS

OU3 - DECONTAMINATION & DISMANTLEMENT

- Plant 5 contract awarded
- Building 12 D&D progress

PLANT 5



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Photo taken April 1999

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BUILDING 12 D&D

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Photo taken May 1999

BUILDING 12 DEMOLITION

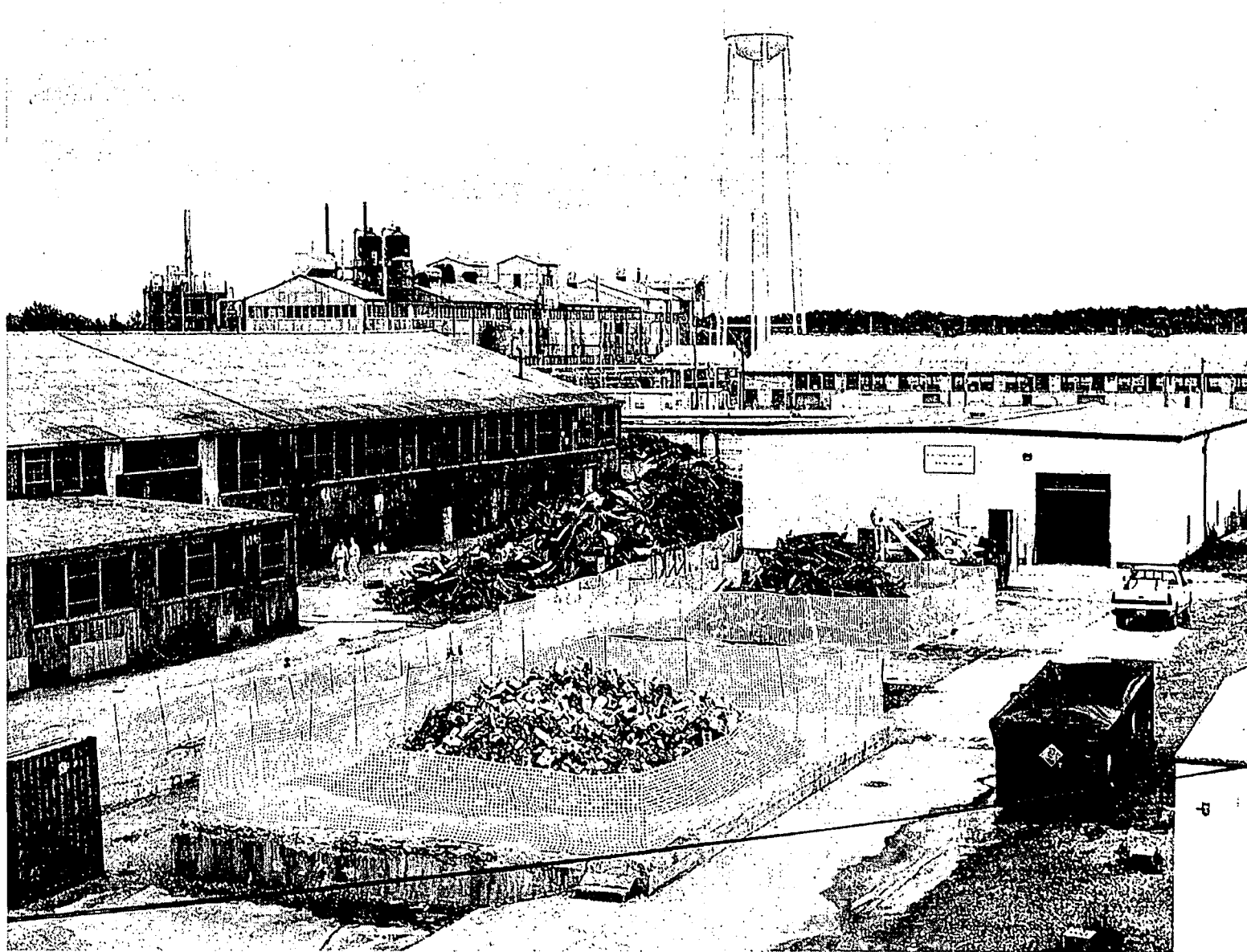


Photo taken May 1999

PROJECT NEWS

OU4 - SILOS PROJECT

Silos 1 & 2:

- Accelerated Waste Retrieval
 - Foster Wheeler initiated conceptual design
- Proof-of-Principle Testing
 - Vendors' test reports from demonstration runs being finalized
 - Public will have opportunity to review reports in July
- Silos 1 and 2 Dome Resealing
 - Completed resealing of domes to reduce radon emissions

SILO DOME SEALING

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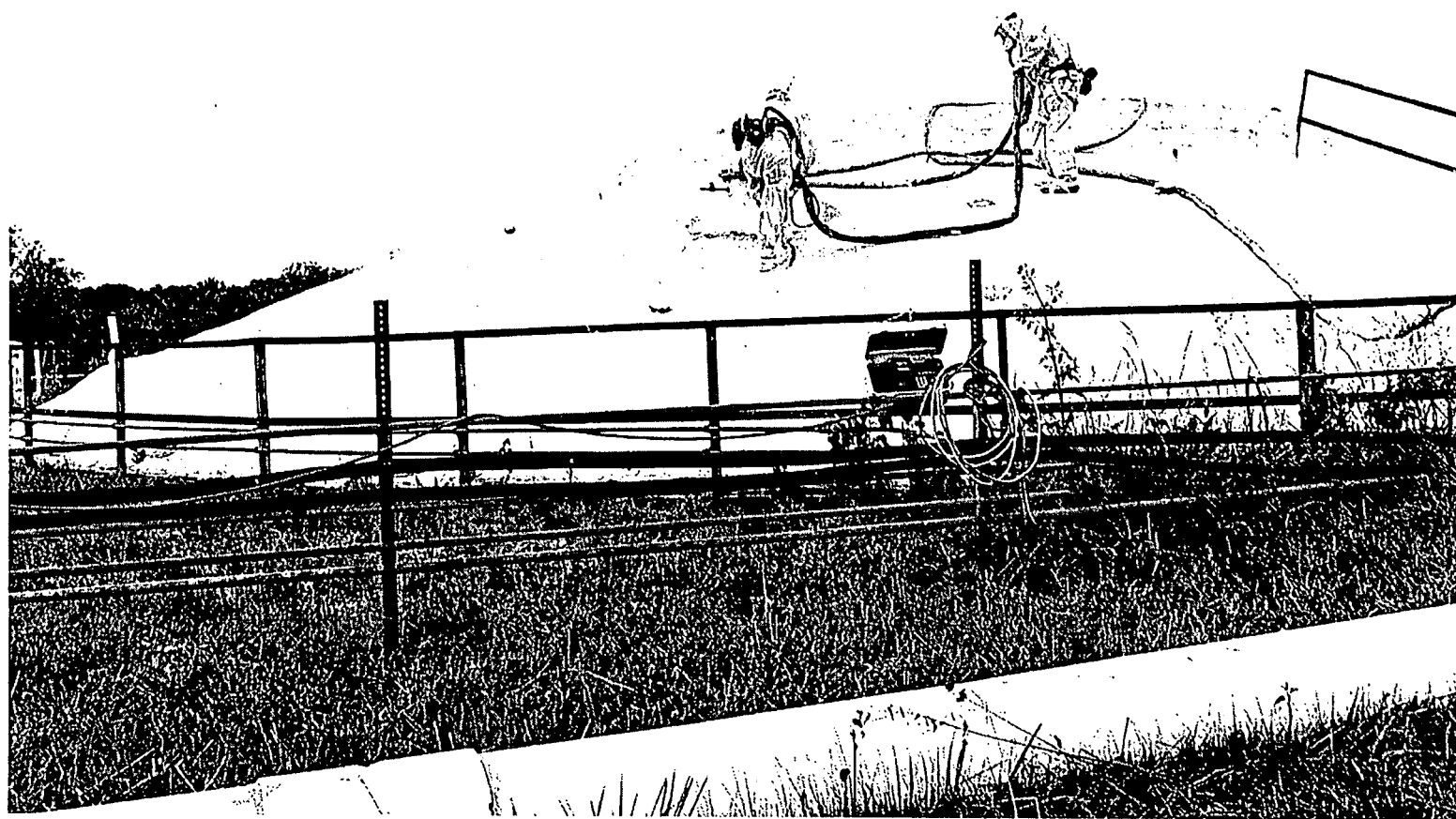


Photo taken May 1999

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SILO DOME SEALING

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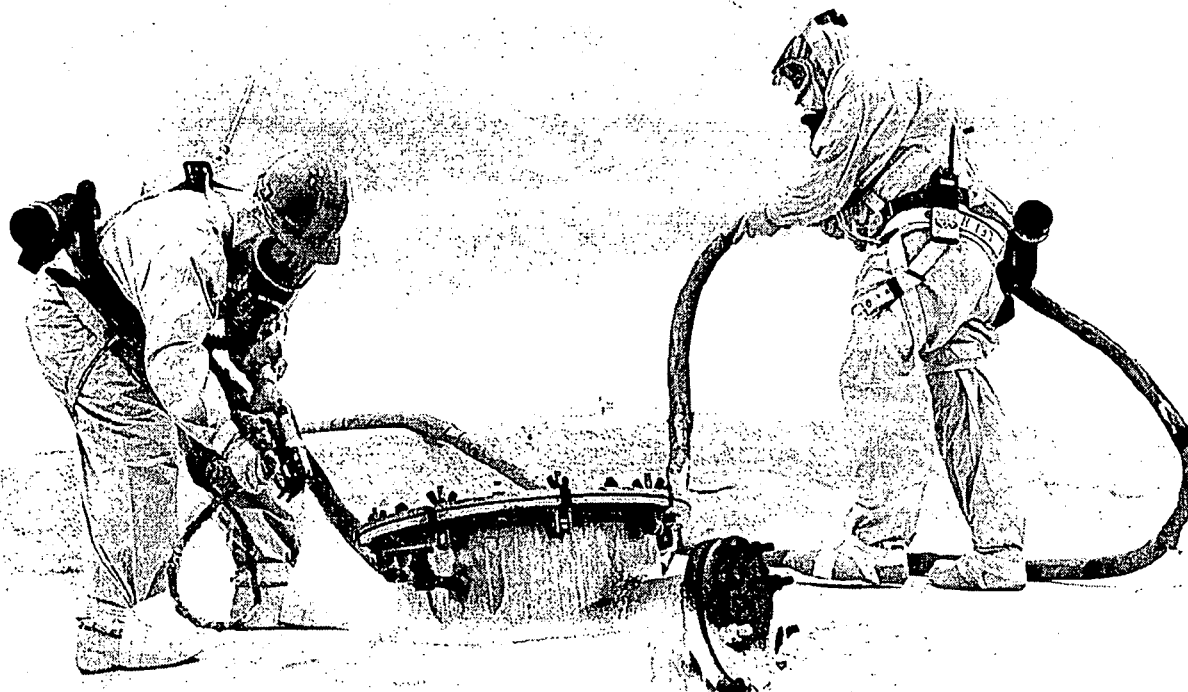


Photo taken May 1999

SILOS INFRASTRUCTURE

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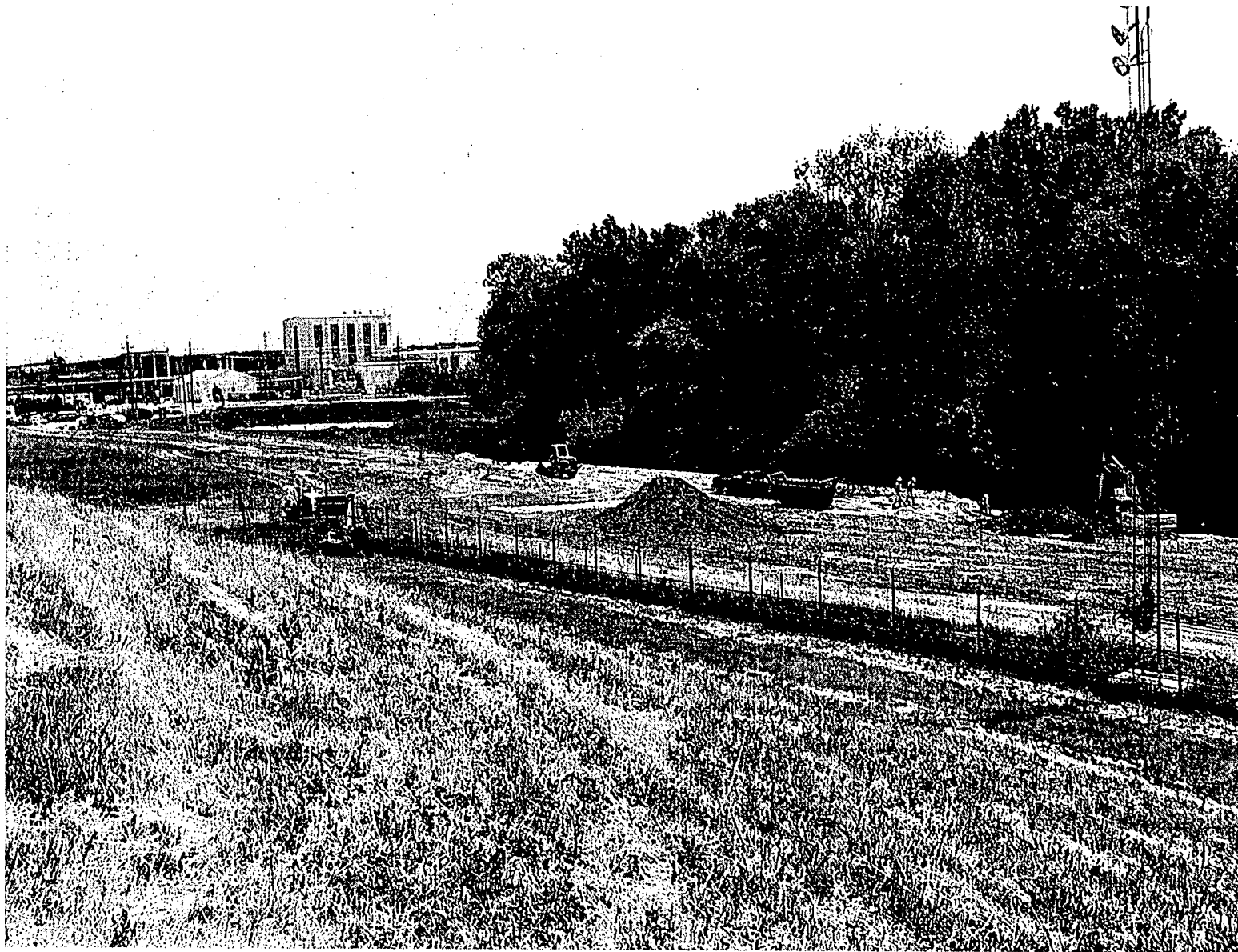


Photo taken May 1999

PROJECT NEWS

OU4 - SILOS PROJECT

Silo 3 Project:

- Rocky Mountain Remediation Services continues to prepare design documents

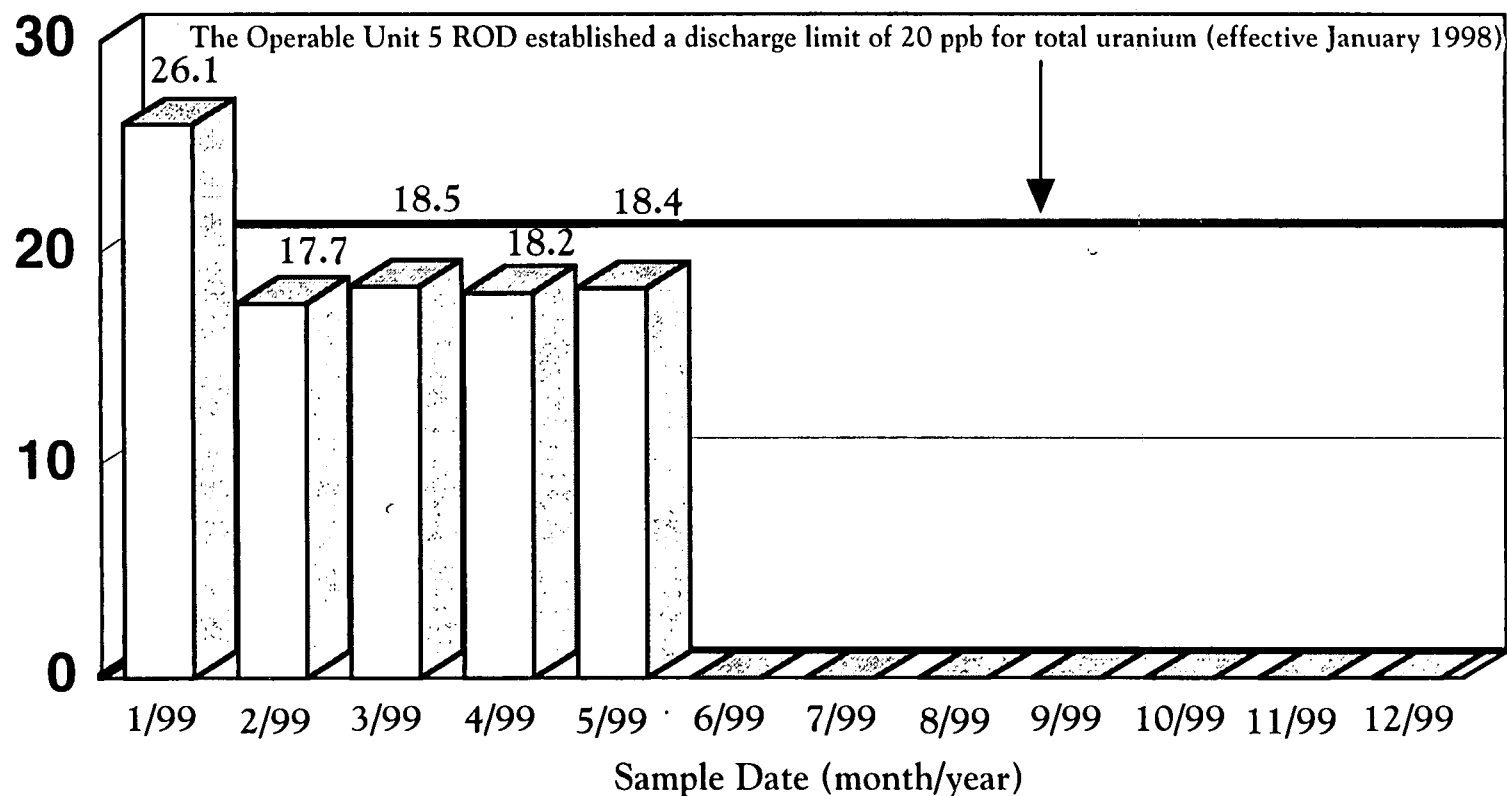
PROJECT NEWS

OU 5 - AQUIFER RESTORATION/ WASTEWATER PROJECT

- Compliance with discharge requirements
- Re-injection demonstration project update
- Evaluation of the South Plume contamination complete

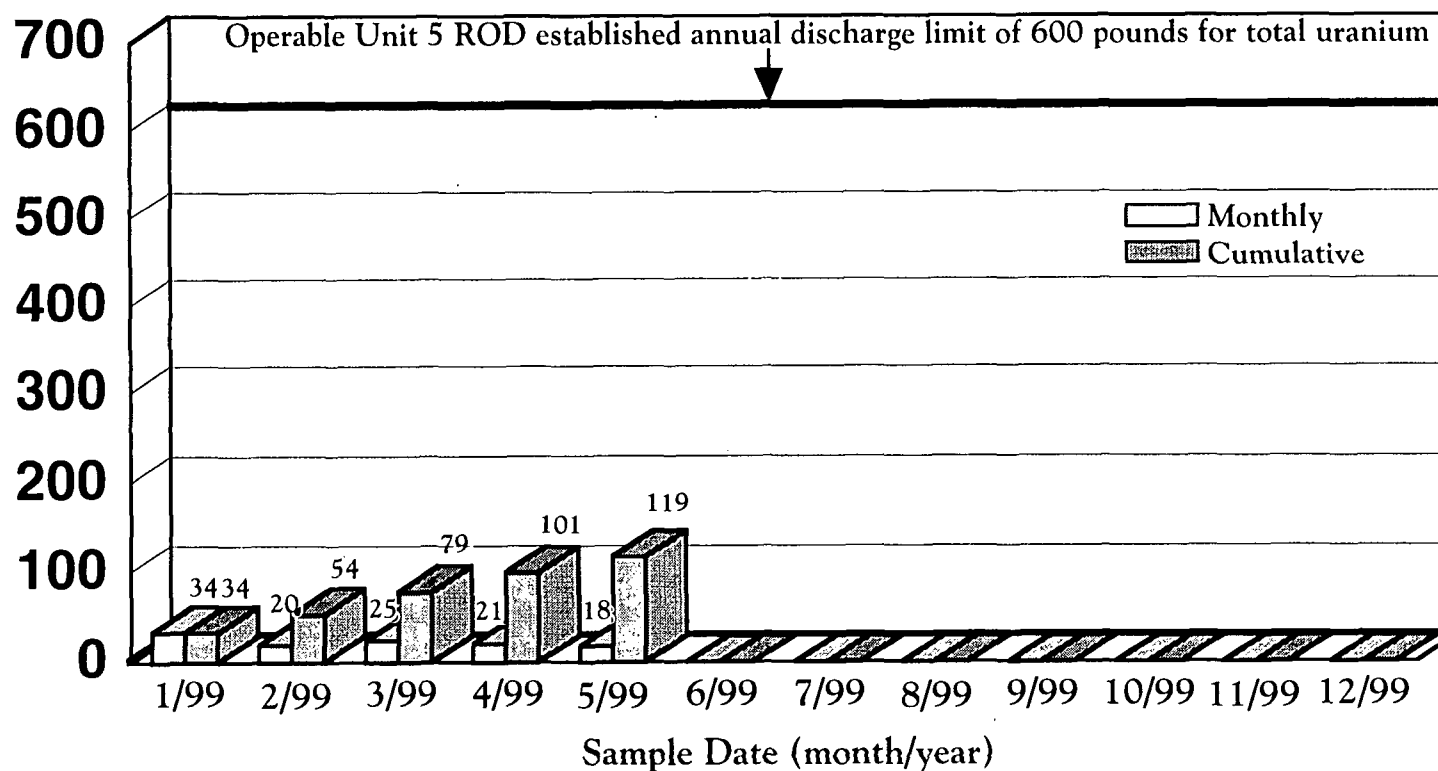
AVERAGE MONTHLY TOTAL URANIUM CONCENTRATION DISCHARGED TO THE GREAT MIAMI RIVER IN 1999

Concentration
(ppb)



POUNDS OF URANIUM DISCHARGED TO THE GREAT MIAMI RIVER IN 1999

Weight (pounds)



Note: Sum of monthly discharges may not always agree with cumulative total because of rounding differences.

PROJECT NEWS

OU 5 - AQUIFER RESTORATION/ WASTEWATER PROJECT

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- Re-Injection Demonstration Project
 - One-year demonstration project to determine if re-injection will be part of aquifer restoration
 - Began re-injecting treated groundwater in September 1998
 - Five-well system re-injecting at a rate of 200 gallons per minute per well

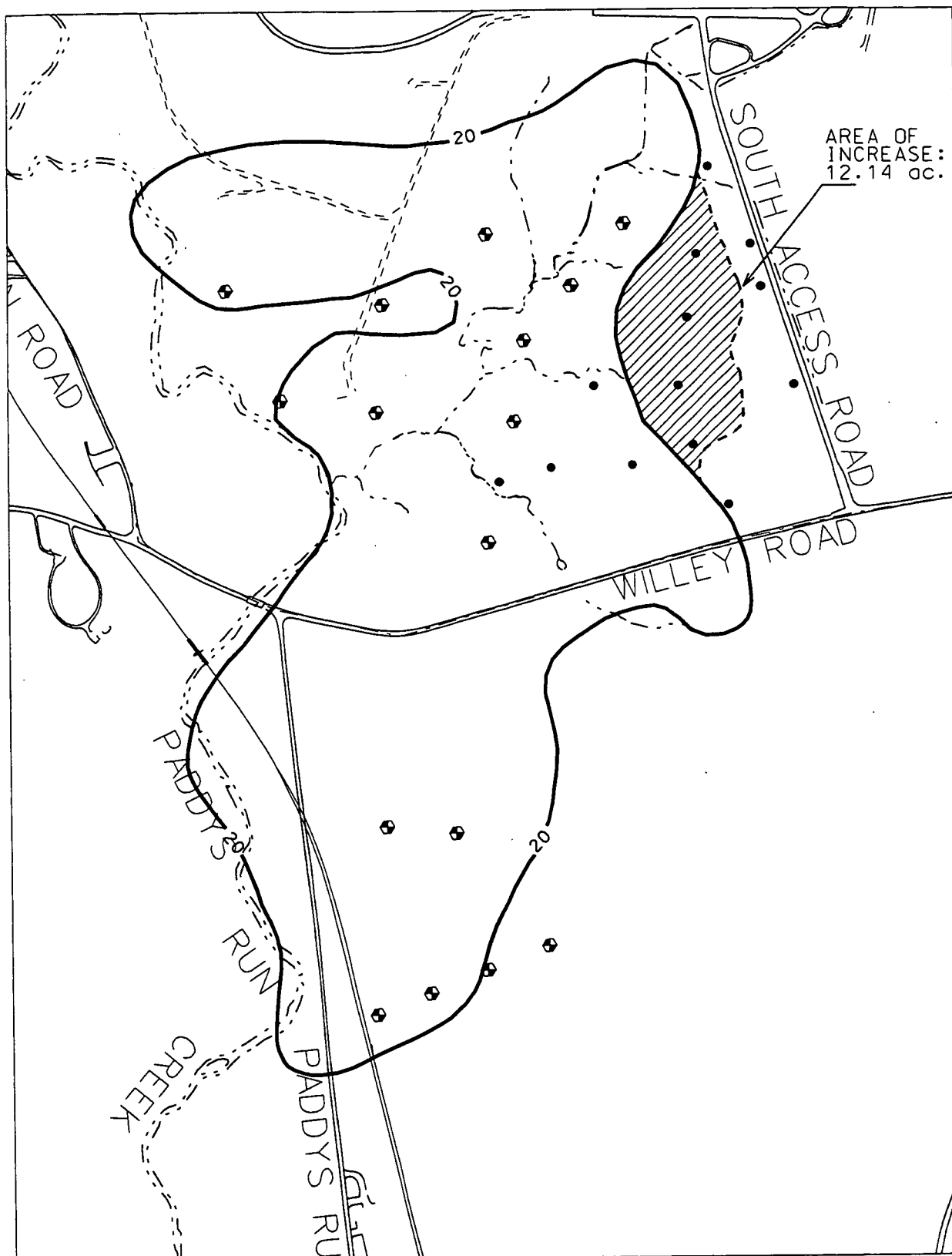
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SOUTH PLUME

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STATE PLANAR COORDINATE SYSTEM 1983

03-JUN-1999



AREA OF
INCREASE:
12.14 ac.

LEGEND:

- GEOPROBE LOCATION
- ★ EXTRACTION WELL LOCATION

- 20 — TOTAL URANIUM CONTOUR
IN $\mu\text{g/L}$
- NEW TOTAL
URANIUM CONTOUR

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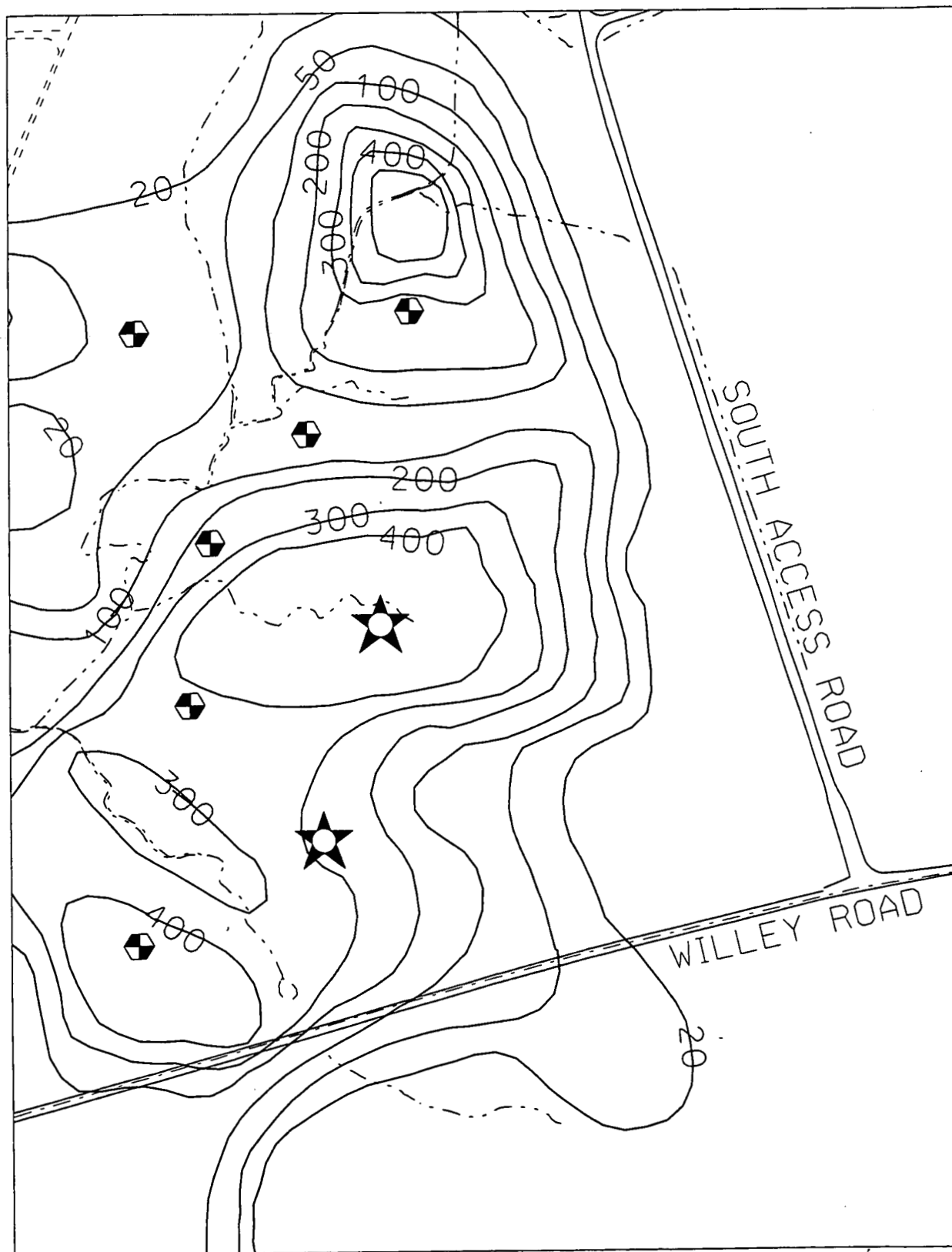
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SOUTH PLUME

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STATE PLANAR COORDINATE SYSTEM 1983

03-JUN-1999



LEGEND:



EXTRACTION WELL



PROPOSED EXTRACTION
WELL LOCATION

— 20 —

TOTAL URANIUM CONTOUR
IN $\mu\text{g/L}$

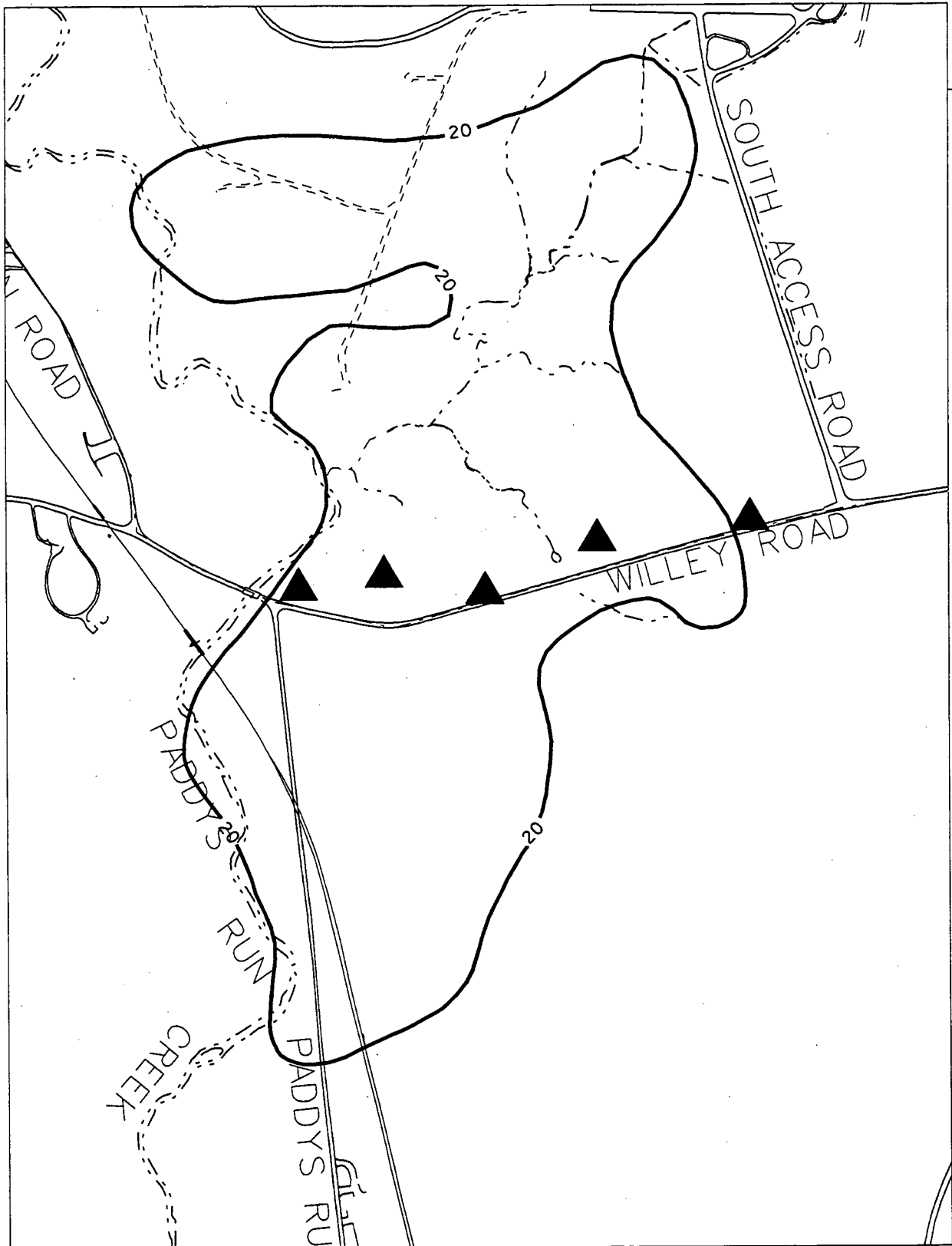
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INJECTION WELLS

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STATE PLANAR COORDINATE SYSTEM 1983

07-JUN-1999



LEGEND:



INJECTION WELL LOCATION

— 20 — TOTAL URANIUM CONTOUR
IN $\mu\text{g/L}$

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GEOPROBE DEMONSTRATION



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Photos taken May 1999

PROJECT NEWS

OU 5 - SOIL CHARACTERIZATION & EXCAVATION PROJECT

- Wetland Project construction completed
- Sewage Treatment Plant site preparation activities completed; excavation began in May
- Production area remediation conceptual design completed
- Lime Sludge Pond design and implementation plan completed
- Collection of Area 8, Phase II and Area 6 certification samples began in May
- Excavation activities in Southern Waste Units to resume in July
- Stabilization/excavation of lead-contaminated soils within firing range area and former trap range to begin this summer

WETLAND PROJECT



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Photo taken May 1999

ECO PARK

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Photo taken April 1999

SOUTHERN WASTE UNITS



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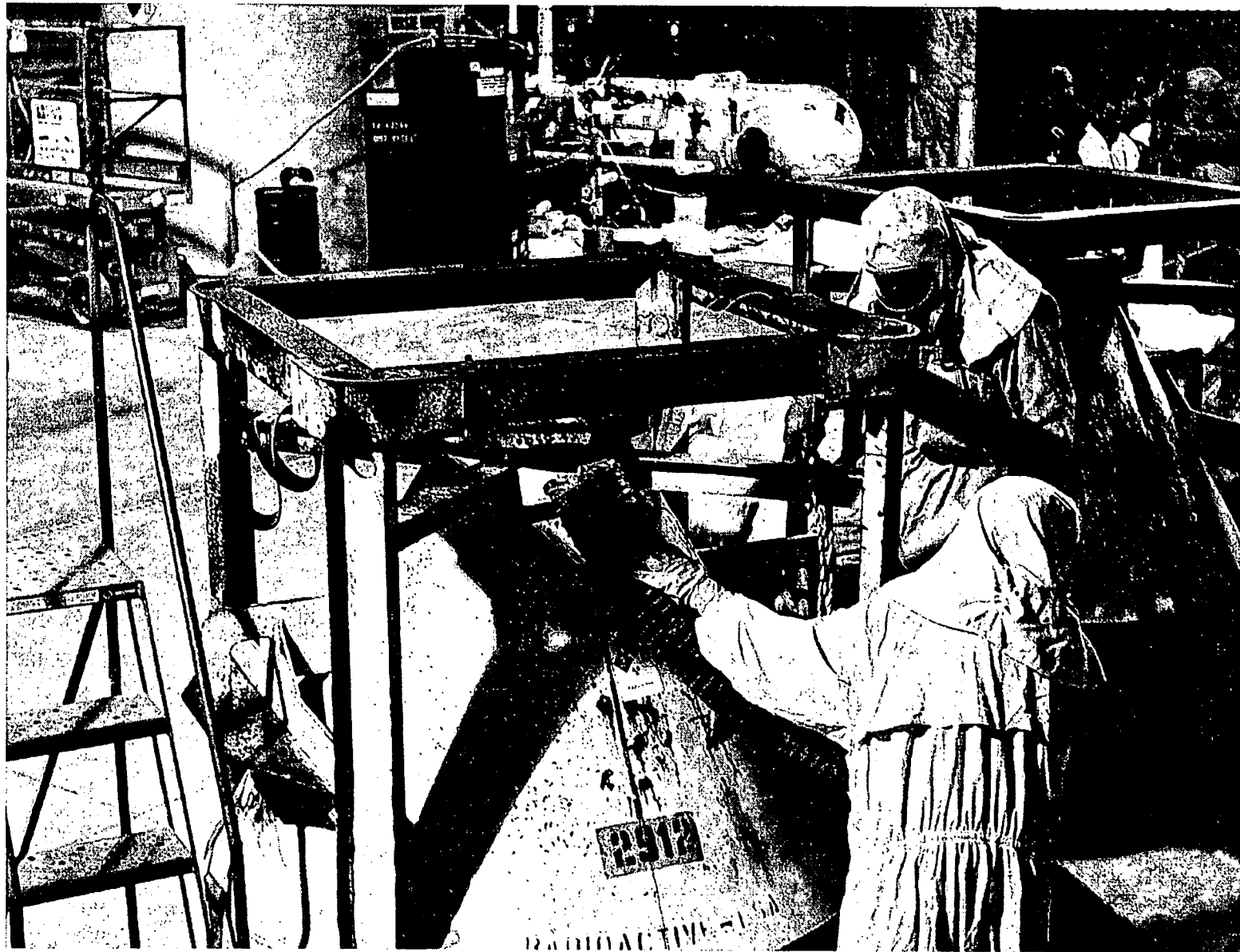
Photo taken April 1999

PROJECT NEWS

WASTE MANAGEMENT

- Standard Startup Review of low-level waste shipments being conducted to ensure safe, quality shipments are transported to the Nevada Test Site
- Nuclear material shipments to Portsmouth initiated last week
- Stakeholders from across the nation identified eight consensus statements regarding transportation at FCAB sponsored Transportation Workshop
- Final shipment of Batch 7 liquid mixed waste will be shipped this week; Batch 8 shipment scheduled to begin next week
- Final request for proposals for intermodal transportation services will be issued in June; contract award scheduled for August

T-HOPPER INSPECTION IN BUILDING 80



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Photo taken May 1999

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NUCLEAR MATERIAL SHIPMENTS

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Photo taken June 1999

FCAB TRANSPORTATION WORKSHOP

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Photo taken May 1999

FCAB TRANSPORTATION WORKSHOP

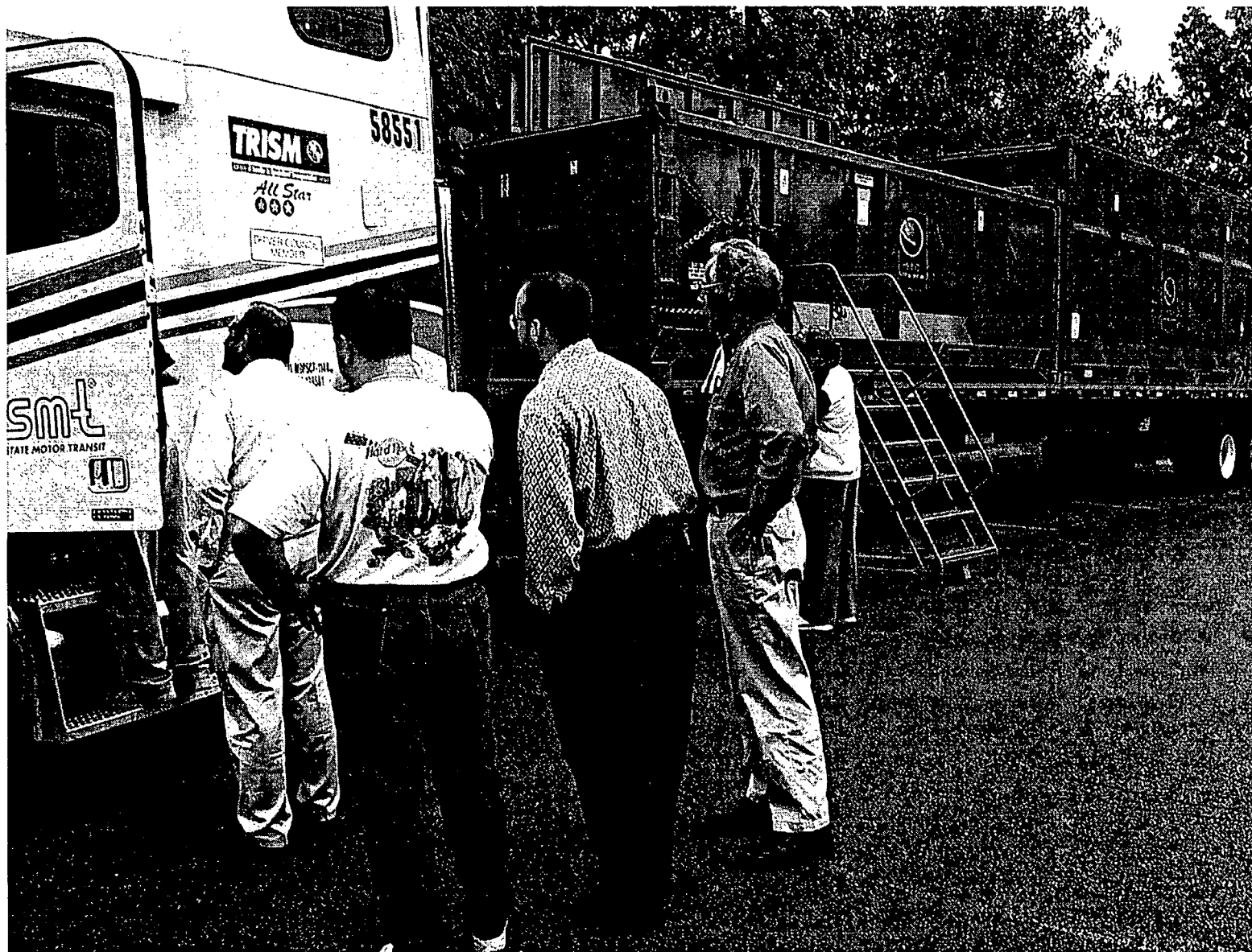
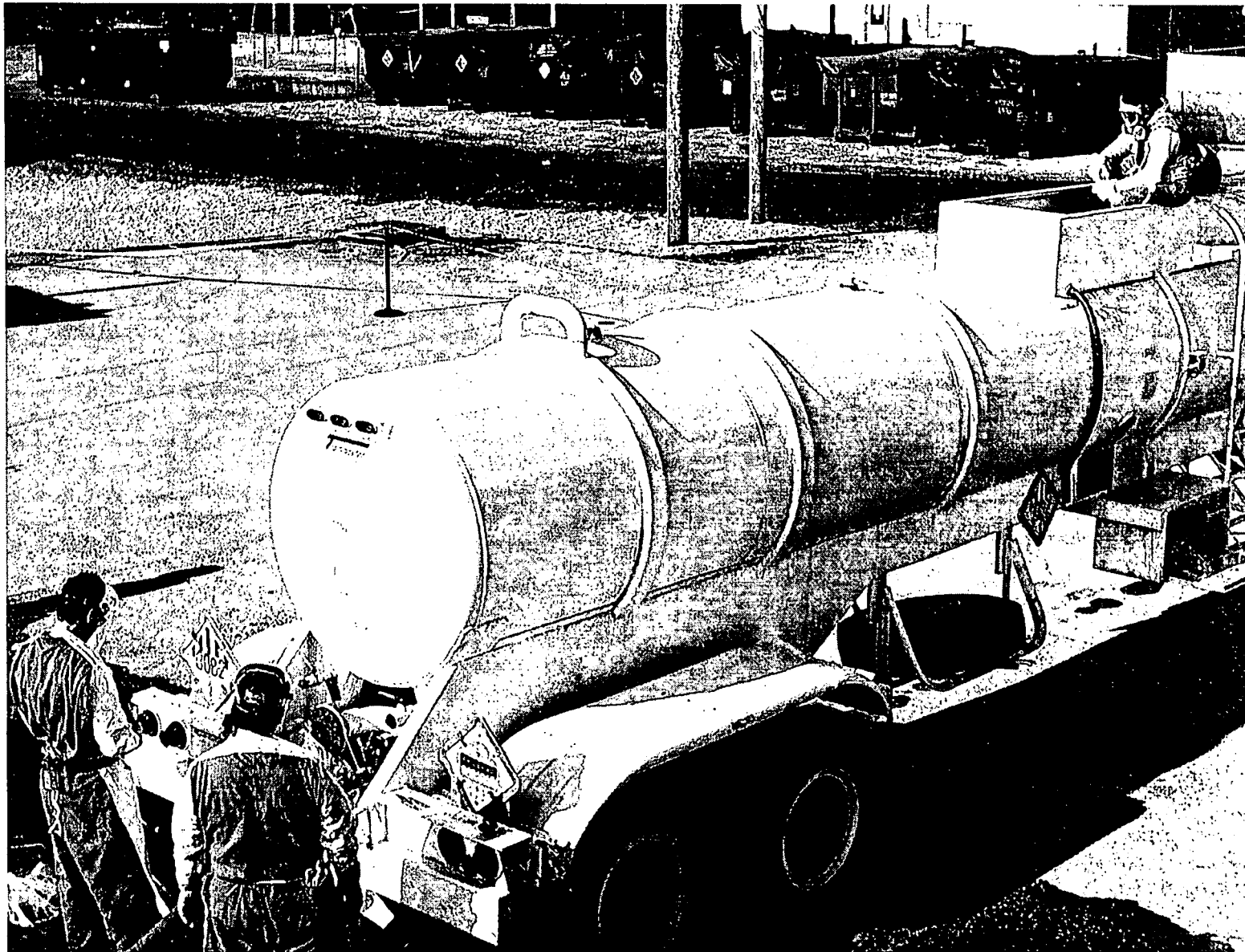


Photo taken May 1999

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LIQUID MIXED WASTE



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Photo taken May 1999

Graphic 758.7F 6/99

Photo #6898-D0069

WASTE PITS REMEDIAL ACTION PROJECT

| MAY 1999 | |
|--|------------------------|
| Major Work Activities | Enforceable Milestones |
| <i>Waste Pit Project Activities</i> <ul style="list-style-type: none">Shipped two unit trains to Envirocare of Utah, encompassing total of 10,990 tons of wasteContinued construction of remaining treatment facilitiesContinued loading of waste into railcars in anticipation of next unit train shipment | None |
| <i>Planning, Training & Contracts</i> <ul style="list-style-type: none">Continued treatment facility operations training for on-site personnel | |
| 60-DAY LOOK AHEAD | |
| Anticipated Work Activities | Enforceable Milestones |
| <i>Waste Pit Project Activities</i> <ul style="list-style-type: none">Continue loading of waste into railcars & shipment of unit trains to EnvirocareComplete facilities needed for Pit Excavation & full processing; initiate acceptance testing for process facilities & prepare for Standard Startup Review for Dryer OperationsAwait completion of regulatory review of Draft Final Remedial Action (RA) Package deliverables; submit Final RA packageComplete excavation of Soil Pile 6 & begin excavation of Soil Pile 7 | None |
| <i>Planning, Training & Contracts</i> <ul style="list-style-type: none">Continue training of on-site personnel for full operationsProcure additional railcars | |

DOE Project Manager --- Dave Lojek/513-648-3127

FDF Division Manager --- Bob Fellman/513-648-4755

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ON-SITE DISPOSAL FACILITY PROJECT

| MAY 1999 | |
|---|---|
| Major Work Activities | Enforceable Milestones |
| <ul style="list-style-type: none"> • Completed installation of Interim Leachate Transmission line • Continued clay screening in Borrow Area • Continued Cell 3 subgrade preparation • Issued revised OSDF Systems Plan to regulatory agencies | None |
| 60-DAY LOOK AHEAD | |
| Anticipated Work Activities | Enforceable Milestones |
| <ul style="list-style-type: none"> • Begin placing waste into Cells 1 & 2 • Continue clay screening in Borrow Area • Commence construction of clay liner in Cell 3 • Initiate design of Permanent Leachate Line | Begin Cell 3 construction by 7/1/99 (Note: This milestone was met on 4/29/99 with start of Cell 3 subgrade preparation) |

DOE Project Manager --- Jay Jalovec/513-648-3122

FDF Project Manager --- Mike Hickey/513-648-5971

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DECONTAMINATION & DISMANTLEMENT PROJECTS

| MAY 1999 | |
|---|--|
| Major Work Activities | Enforceable Milestones |
| <i>Facilities Shutdown</i> | |
| <ul style="list-style-type: none"> Completed shutdown of Pipe Bridges Archived 38 boxes of Safe Shutdown records to Records Center | Submitted Safe Shutdown Project Closeout Report to regulators 5/10/99 |
| <i>Decontamination & Dismantlement (D&D) Projects</i> | |
| <ul style="list-style-type: none"> Maintenance/Tank Farm & Water Storage Tank Project <ul style="list-style-type: none"> Began installation of underground utilities Continued construction of water storage tank Completed D&D of Buildings 12B & 12C Plant 5 Complex <ul style="list-style-type: none"> Issued Notice-to-Proceed to subcontractor, MACTEC, Inc., on 5/17/99 MACTEC began mobilization of key project personnel | <p>Submitted Plant 6/East Warehouse Complex Draft Implementation Plan to regulators 4/30/99, meeting milestone date of 5/1/99</p> <p>Submitted Plant 5 Complex D&D Draft Implementation Plan to regulators 1/25/99, substantially in advance of milestone date of 5/2/99</p> |
| 60-DAY LOOK AHEAD | |
| Anticipated Work Activities | Enforceable Milestones |
| <i>Facilities Shutdown Project</i> | |
| <ul style="list-style-type: none"> Begin Building 64/65 facility shutdown Begin work on Burn Pad | None |
| <i>D&D Projects</i> | |
| <ul style="list-style-type: none"> Maintenance/Tank Farm & Water Storage Tank Project <ul style="list-style-type: none"> Continued D&D of Buildings 12A, 19C, & 19E, Railroad Locomotive & Pipe Bridges Complete installation of underground utilities Complete construction of Water Storage Tank Plant 5 Complex <ul style="list-style-type: none"> MACTEC, Inc., to mobilize 7/1/99 | Complete Field Activities on RCRA/CERCLA Integrated Closure for Trane Incinerators, UNH Tanks, Hot Raffinate Building by 6/1/99; submit Completion Report to regulators by 7/30/99 |

DOE Project Manager --- John Trygier/513-648-3154

FDF Division Manager --- Tom Beasley, 648-5346

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SILOS PROJECT

| MAY 1999 | |
|--|------------------------|
| Major Work Activities | Enforceable Milestones |
| Silos 1 & 2 <ul style="list-style-type: none">• Initiated Dome Seal Repair activities• Proof-of-Principle testing vendors completed oral presentations on Draft Final Test Reports & received final comments from project management• Staver Group completed installation of rock fill for Roads & Electrical Upgrades portion of Silos Infrastructure Project• Received draft schedule from Foster Wheeler Environmental for Accelerated Waste Retrieval (AWR) Project activities; held alignment meeting | None |
| Silo 3 <ul style="list-style-type: none">• Finalized Safety Basis Implementation Plan• Began development of conceptual design for project | |
| 60-DAY LOOK AHEAD | |
| Anticipated Work Activities | Enforceable Milestones |
| Silos 1 & 2 <ul style="list-style-type: none">• Complete Dome Seal Repair Project• Finalize vendor reports on Proof-of-Principle testing; make reports available to stakeholders• Review initial subcontractor submittals for AWR Project• Complete readiness audit for Vitrification Pilot Plant Waste Disposition Project; initiate treatment, shipment & disposal of waste• Complete all construction activities for Silos Infrastructure Project | None |
| Silo 3 <ul style="list-style-type: none">• Conduct conceptual design briefing for regulatory agencies• Continue review/finalization of submittals from Rocky Mountain Remediation Services (examples are Design Basis, Conceptual Design, Fire Hazards Analysis, etc.) | |

DOE Project Manager --- Nina Akgündüz/513-648-3110

FDF Project Manager --- Don Paine/513-648-5310

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AQUIFER RESTORATION/WASTEWATER PROJECT

MAY 1999

| Major Work Activities | Enforceable Milestones |
|---|--|
| Submitted February 1999 Operating Report for Injection Demonstration System to DOE 5/4/99; submitted to regulatory agencies 5/12/99 | Submitted NPDES Noncompliance Report to OEPA 5/14/99 (covering 04/98) Submitted monthly National Pollutant Discharge Elimination System (NPDES) Discharge Monitoring Report (DMR) to OEPA 5/13/99 (covering 4/98) |
| Continued geoprobing activities in South Field area | |
| Completed construction of Stormwater Retention Basin (SWRB) area drainage improvements | |
| Continued construction of Sludge Removal System at SWRB and Biosurge Lagoon (BSL); activity is approximately 75% complete | |
| Initiated Advanced Wastewater Treatment (AWWT) Facility Laboratory Expansion Project construction | |
| Initiated preliminary design of additional extraction wells for South Field Extraction System (SFES) | |

60-DAY LOOK AHEAD

| Anticipated Work Activities | Enforceable Milestones |
|---|---|
| Continue to geoprobe in South Field area | Submit monthly NPDES DMR to OEPA Submit Integrated Site Environmental Monitoring Report to regulatory agencies by 6/1/99 Submit Integrated Environmental Monitoring Program Quarterly Update Report to regulatory agencies by 6/26/99, covering first quarter of 1999 |
| Complete construction of Sludge Removal Systems at SWRB and BSL; begin start-up testing | |
| Continue designing additional extraction wells for SFES | |
| Receive bids for upgrading of AWWT Distributed Control System and award contract | |
| Continue AWWT Laboratory Expansion construction | |

SOIL CHARACTERIZATION & EXCAVATION PROJECT

MAY 1999

Major Work Activities

Enforceable Milestones

Area 1 Phase II (Southern Portion of East Field)

- Completed Trap Range Stabilization treatability study; received Ohio EPA concurrence
- Completed all Site Preparation Package construction
- Initiated preliminary construction associated with Sewage Treatment Plant (STP) excavation; includes culvert/fence installation, diversion ditch construction & construction of support road for On-Site Disposal Facility (OSDF) subcontractor
- Received Ohio EPA approval of Certification Design Letter for North Area of Area I Phase II (Cell 3 of OSDF)

None

Area 2 Phase I (Southern Waste Units)

- Completed RTRAK (Radiation Tracking System) scanning within Inactive Flyash Pile (IFP) at Boring #3 & in southwest corner
- Completed treatability study for stabilization of lead-contaminated firing range

Area 2 Phase III (South Central Portion of the Fernald Site)

- Received regulatory agency comments on Certification Design Letter & Certification Sampling Project Specific Plan

Areas 3, 4 & 5 (Former Production Area)

- Completed conceptual design activities & development of 3-D model
- Submitted Integrated Remedial Design Package for Lime Sludge Ponds to regulatory agencies
- Held alignment meeting 5/21/99 with Lockwood Greene Technologies for Title I/II design work

Natural Resource Restoration

- Continued planting in Area 8 Phase I vegetation plots
- Continued Wetland Mitigation field work
- Initiated review of Ecological Research Case Study Draft Report prepared by Texas Southern University

60-DAY LOOK AHEAD

Anticipated Work Activities

Enforceable Milestones

Area 1 Phase II (Southern Portion of East Field)

- Begin excavation monitoring at STP
- Complete digester excavation at STP & transport to Soil Pile 7
- Complete East & West Impacted Material Stockpile excavations
- Mobilize for full scale Trap Range stabilization

None

Area 2 Phase I (Southern Waste Units)

- Complete additional sampling in IFP & accessible areas of South Field; begin excavation
- Mobilize & begin in-situ stabilization in Firing Range area

Area 3A/4A (Eastern Half of Former Production Area)

- Receive/approve Task Order Plan from Lockwood Greene

Natural Resource Restoration

- Issue Responsiveness Summary and Finding regarding final land use at Fernald
- Reseed selected plots in Area 1 Phase I Vegetation Plots Research Project
- Complete planting in Area 8 Phase I vegetation plots
- Complete Wetland Mitigation field work

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WASTE MANAGEMENT PROJECTS

MAY 1999

| MAY 1999 | |
|---|------------------------|
| Major Work Activities | Enforceable Milestones |
| <i>Waste Shipping Activities</i> | None |
| <ul style="list-style-type: none">Nuclear Materials Disposition<ul style="list-style-type: none">Shipped 27,654 pounds of depleted uranium tetrafluoride (UF₄) to DOE-Oak Ridge's Portsmouth, Ohio site (shipment actually took place on 6/2/99) | |
| <i>Waste Treatment Projects</i> | |
| <ul style="list-style-type: none">Thorium Legacy Waste Project (TLWP)<ul style="list-style-type: none">Repackaged 76 boxes low level waste for shipment to NTSSegregated 4 boxes of mixed waste for treatmentTotal of 318 boxes repackaged so far | |
| <i>Nuclear Materials Projects</i> | |
| <ul style="list-style-type: none">NMD Operations<ul style="list-style-type: none">Continued repackaging of approximately 14,500 10-gallon cans of depleted uranium tetrafluoride (UF₄) for shipment to DOE-Oak RidgeTotal of 242 of estimated 540 boxes packaged as of 5/20/99 | |
| 60-DAY LOOK AHEAD | |
| Anticipated Work Activities | Enforceable Milestones |
| <i>Waste Shipping Activities</i> | None |
| <ul style="list-style-type: none">Low Level Waste Shipping<ul style="list-style-type: none">Perform Standard Startup Review in preparation for resumption of shipments to NTSMixed Waste Shipping<ul style="list-style-type: none">Complete shipment of Batch #7 (19,000+ gallons mixed waste) to Toxic Substance Control Act Incinerator; begin shipping Batch #8 (18,100 gallons newly generated & recharacterized low level waste)Ship 143 drums mixed waste to Envirocare of Utah, Inc. | |
| <i>Waste Treatment Projects</i> | |
| <ul style="list-style-type: none">TLWP<ul style="list-style-type: none">Continue repackaging operationsSite Treatment Plan (STP)<ul style="list-style-type: none">Prepare amendment to STP to allow disposition of Fire Training Facility waste through OSDF | |
| <i>Nuclear Materials Projects</i> | |
| <ul style="list-style-type: none">NMD Operations<ul style="list-style-type: none">Continue repackaging cans of depleted UF₄ for shipment to Portsmouth | |

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